



## Preliminary Reuse Assessment

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# Atlas Tack Superfund Site



Office of Site Remediation and Restoration  
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## PURPOSE OF THIS DOCUMENT

EPA-New England is responsible for the cleanup of over 100 Superfund sites throughout the six New England states. Although protecting human health and the environment is the primary objective of these cleanups, EPA also recognizes the value in helping to return Superfund sites to beneficial reuse. Understanding the current and likely future uses of a site is key to achieving both of these objectives.

To establish cleanup standards and design a protective remedy, it is necessary to first determine how the site and immediate surroundings will be used. This information is then used to make reasonable assumptions about potential exposures to contaminants. For this reason, the types of site use, as well as the level of certainty regarding those uses, can have a dramatic impact on the final remedy and associated project costs.

This Reuse Assessment summarizes information about current and future land uses at the site that was readily available to the EPA case team. It is intended to be the basis for working with local communities, property owners and other stakeholders to develop a more complete and realistic understanding of site use. Where there is uncertainty regarding potential reuse options, EPA will encourage and assist local efforts to resolve that uncertainty. This collective information will help support EPA's decisions regarding appropriate response actions at the site, including the consideration of site use/reuse in the design and implementation of the cleanup.

The Preliminary Reuse Assessment is presented in three sections:

- **Section 1 - Site Background:** Describes the physical, environmental, and historical context of the site, particularly as it applies to current and potential future uses;
- **Section 2 - Reuse Status:** Summarizes the current uses and identifies some potential reuse issues and considerations associated with individual areas of the site; and
- **Section 3 - General Findings/Recommendations:** Identifies some specific actions EPA plans to take to work with stakeholders and other parties to resolve remaining questions about future site use.

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## SECTION 1 - SITE BACKGROUND

### General Description

The Atlas Tack Corp. Superfund site (site) is located at 83 Pleasant Street in Fairhaven, Massachusetts, approximately one-half mile from Fairhaven Center (See Figure 1 - Site Location Map). The site includes property owned by the Atlas Tack Corporation (Atlas Tack) including a portion of Boys Creek, its tidal marsh, and property at the end of Church Street owned by the Hathaway-Braley Wharf Company. The Fairhaven hurricane barrier, constructed in the mid-1960s, cuts through the tidal marsh. In addition to the Atlas Tack facility, the site includes a disposal area, the Commercial and Industrial Debris (CID) Area located on a 3.2-acre unimproved parcel on Church Street (Map #6, Lot # 46) owned by Hathaway-Braley (hereinafter the Church Street property). The Church Street property which includes fresh water wetlands, abuts the southeast side of the Atlas Tack property. The total site area covers about 24 acres. (See Figure 2 - Study Area)

### QUICK FACTS

**Location:** 83 Pleasant St.  
Fairhaven, CT  
(Bristol County)

**ID Number:** MAD001026319

**Site Area:** 24 acres

**Current Uses:** Abandoned industrial area

**Ownership:** Multiple, private owners

**Cleanup Status:** Remedial design

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(617) 918-1332

With the exception of the tidal marsh, the area surrounding the site is predominantly residential. There is a bike path and a boat-related industry just north of the site and an elementary school about 200 feet to the northwest.

Atlas Tack owns the tidal marsh north and immediately south of the hurricane barrier. The remainder of the southern portion of the marsh is owned by the town of Fairhaven and the Commonwealth Electric Company.

Soil, sediment, groundwater, and surface water at the site are contaminated with heavy metals, volatile organic compounds and other contaminants as a result of on-site disposal activities and discharges from the former manufacturing processes.

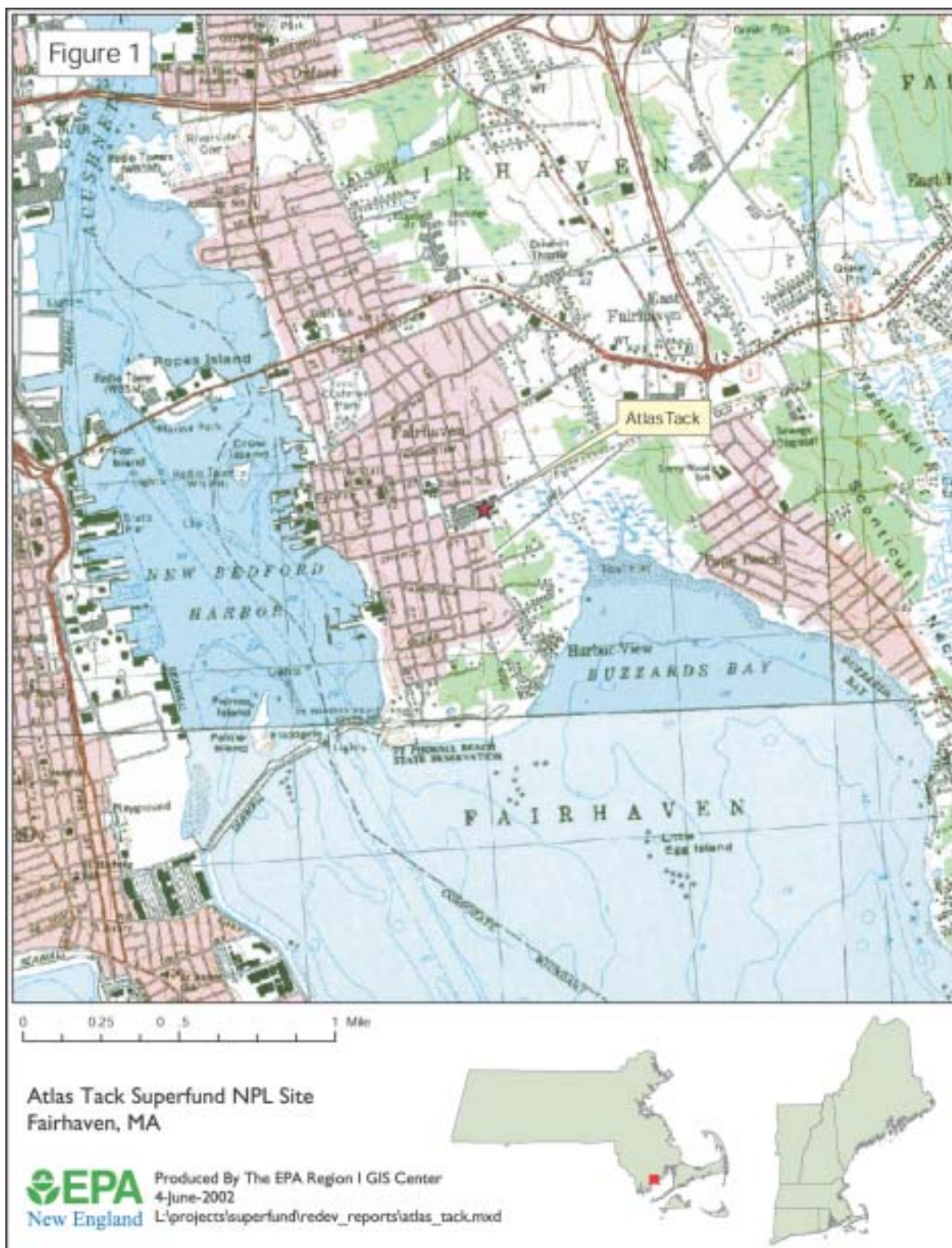
The groundwater beneath and in the vicinity of the site is not currently used as a drinking water supply. The groundwater is generally unsuitable for potable purposes because of the influence of salt water. The Massachusetts Department of Environmental Protection (DEP) has not classified the groundwater as a current or potential drinking water supply. Similarly, Boys Creek is tidally influenced and is not believed to be usable as a drinking water supply. All homes in the vicinity of the site are connected to the public water supply.

The closest public water supply well is about one mile from the site.

Groundwater flows under the site in a northeasterly direction and discharges into the marsh and Boys Creek. The vast majority of the marsh area is high marsh, with well-established vegetation. The predominant vegetation in some areas at higher elevations is common reed or phragmites. The predominant vegetation in most of the high marsh is salt hay. Fauna that inhabit the marsh include the great blue heron, the black duck, the meadow vole, and a variety of other small mammals and surface-feeding ducks.

Boys Creek and its tributaries are areas of low marsh. Spike grass is established along the banks and in the small tributaries. Fauna that inhabit the Boys Creek sediments include ribbed mussels, soft shell clams, and benthic and epibenthic organisms.

► Fig. 1





►Fig. 2



## Environmental History/Status

### ►Past Site Operations:

The Atlas Tack facility was built in 1901 by Fairhaven resident Henry Huttleston Rogers. Historically, Atlas Tack manufactured wire tacks, steel nails, rivets, bolts, shoe eyelets and similar items. In 1967, M. Leonard Lewis became the President of Atlas Tack Corp. when Great Northern Industries, Inc. purchased it. Atlas Tack became a Massachusetts corporation at that time, and conducted manufacturing operations at the site until about 1985.

Based on EPA's investigation, it appears that the facility's operations included electroplating, acid-washing, enameling, and painting. Process wastes containing acids, metals such as copper and nickel, and solvents were discharged into drains in the floor of the main building and into an on-site lagoon. The lagoon effluent discharged to the salt marsh and Boys Creek. Chemicals also permeated the floors and timbers of the building and migrated to adjacent soils and groundwater. For example, the plating area, located in one of the facility's buildings, included a cyanide treatment pit. Sludge and liquid from this operation contained cyanide, and the surrounding building materials have residual cyanide contamination. Approximately 8,500 cubic yards of industrial fill was deposited on top of the original marsh surface to the east of the Atlas Tack buildings.

The CID Area, located on the Church Street property, may also have received wastes from Atlas Tack and other sources. This disposal area is located approximately 500 feet southeast of the main Atlas Tack Corporation building and contains approximately 3,000 to 4,000 cubic yards of material.

### Site Contamination/Risk Assessment:

The Remedial Investigation/Feasibility Study (RI/FS) conducted by EPA determined that extensive contamination exists throughout the site. These results are detailed in the RI report (Weston, 1995) and in the Record of Decision (ROD) (EPA, 2000). EPA is currently conducting a multi-phase bioavailability study of the marsh to examine how contaminants present affect the marsh ecology.

Results of the baseline human health risk assessment identified concentrations of arsenic, polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls, (PCBs), and lead in soils and sediments in the commercial area and Boys Creek that are present at levels which represent unacceptable carcinogenic and non-carcinogenic risks.

As described earlier, neither Boys Creek nor the groundwater beneath and in the vicinity of the site is currently or expected to be used for drinking water.

Results of the baseline ecological risk assessment identified concentrations of copper, lead, mercury, nickel, silver, zinc and cyanide in surface waters throughout the site that frequently exceeded unacceptable risk levels. There is a risk to aquatic organisms in the surface waters and associated wetlands from exposure to these chemicals of ecological concern. Concentrations of endosulfan sulfate, anthracene, DDT (total), cadmium, copper, cyanide, lead and zinc were identified as representing the greatest risk to the survival, reproduction and growth of the benthic community. The risk to the benthic community is confirmed by results from the sediment toxicity testing, which indicated an increase in mortality at locations north of the hurricane barrier where contaminants of concern were elevated. Through direct consumption of marsh vegetation and incidental ingestion, the meadow vole is potentially at risk from exposure to several compounds. The chemicals



Marsh North of the Hurricane Barrier

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contributing the greatest risk are endosulfan II, endosulfan sulfate, iron, and lead. The exposure pathway responsible for risk to the black duck is the ingestion of benthic fauna and incidental sediment ingestion. Arsenic and cyanide are the major contaminants of concern contributing to the risk to the black duck and great blue heron, through the ingestion of contaminated fish.

### **Description of the Selected Remedy:**

The ROD presents the selected remedy for the site and utilizes source control and management of migration components to address the principal site risks. The site is divided into the following areas: the Commercial Area; the Solid Waste and Debris Area (SWD); and the Marsh and Creek Bed Areas. The remedial action will address the following principal threats to human health and the environment posed by site conditions: worker exposure to contaminated surface soil and sludge in the Commercial Area; migration of contamination from the Commercial Area; the SWD Area (this area includes the CID Area and the Fill and Lagoon Areas on the Atlas property) and the Marsh surface soil to groundwater, surface water, and creek sediment; exposure of biota to contaminated surface soil and sediment in the SWD and Marsh Areas, and to contaminated surface water and sediment in Boys Creek; and, human ingestion of contaminated shellfish from Boys Creek



Boys Creek South of Hurricane Barrier

The selected remedy for the source areas includes the excavation of approximately 54,000 cubic yards of wastes, soils, and sediments with contaminant concentrations greater than the cleanup goals, and the off-site disposal of these materials at an appropriate licensed waste disposal facility. On-site treatment of some of the contaminated materials, where practicable, will be conducted to reduce the off-site disposal costs.

The management of migration component of the remedy includes monitored natural attenuation with phytoremediation (planting of trees to lower the groundwater table) of site groundwater. The contaminants in the groundwater will be reduced to levels protective of the ecological receptors in the surface water by removing the contamination source in the soils. EPA estimates that it will take approximately 10 years to achieve (through monitored natural attenuation) the groundwater quality goals consistent with a viable ecosystem in Boys Creek and the associated marsh areas. The selected remedy will also provide environmental and ecological benefits through the restoration of an estuarine wetlands system.

The total estimated cost to complete the remedy is \$18.2 million dollars. The remedy is scheduled to be performed in three phases in the event that the site can only be partially funded at different times. Phase I includes the demolition of what remains of the highly contaminated Atlas Tack buildings. This will cost an estimated \$1.8 million. Phase II will include the excavation and restoration of the contaminated soils in the Commercial and Solid Waste and Debris Areas. The estimated cost for this work is \$11.3 million\*. Phase III includes the excavation and restoration of the marsh soils and the creek bed sediments. This phase is estimated to cost \$4.3 million. Monitored natural attenuation and monitoring of site restoration will cost approximately \$0.8 million.

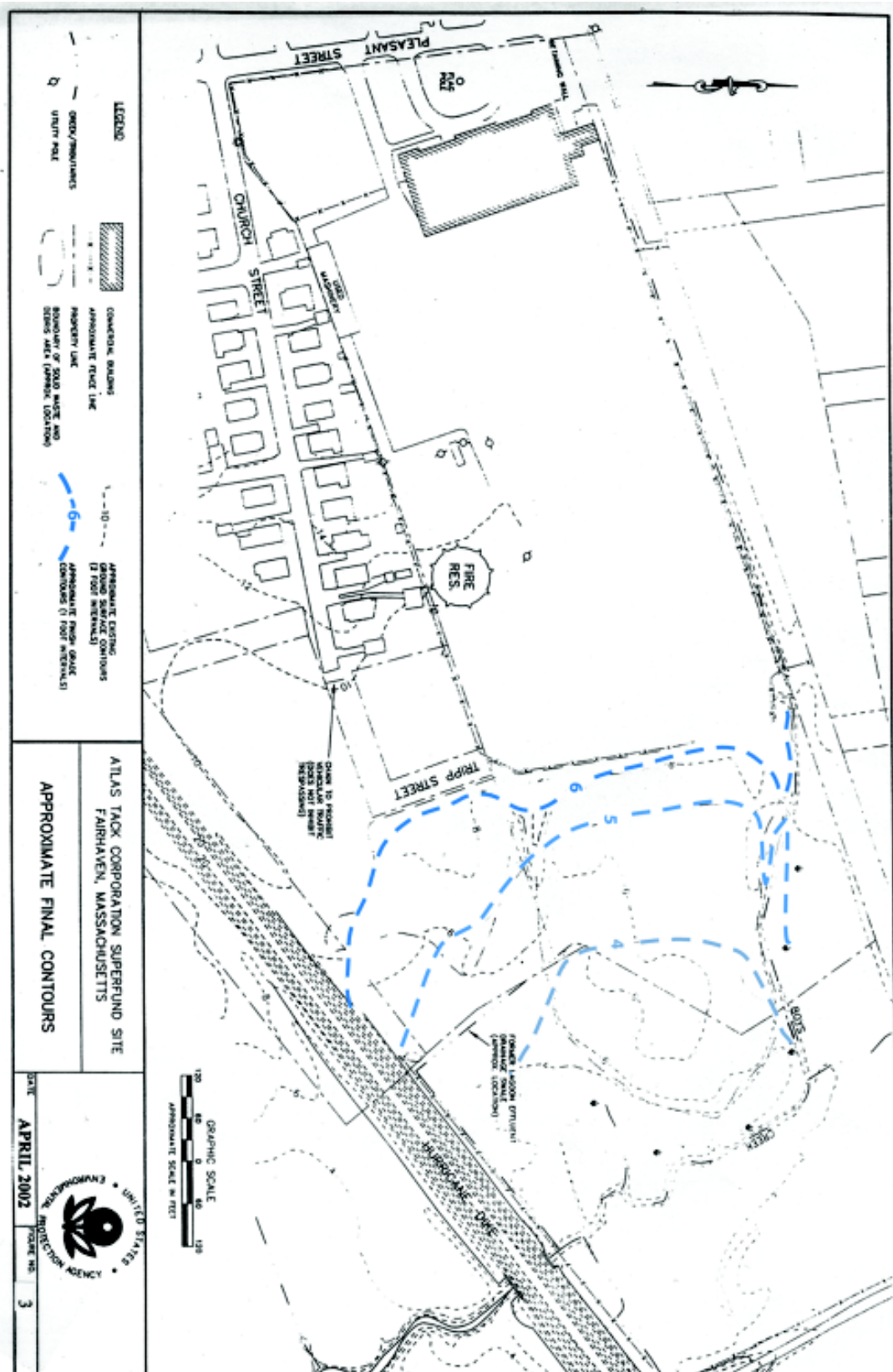
\* see Figure 3—approximate Final Contour



## CHRONOLOGY OF KEY EVENTS

- **1970 through 1979** - Atlas Tack had numerous compliance problems regarding its National Pollution Discharge Elimination System (NPDES) Permits
- **1981 through 1991** - The Commonwealth of Massachusetts took a series of legal actions against Atlas Tack requiring it to conduct various site characterization and cleanup activities.
- **June 1985** - Atlas Tack ceases manufacturing operations in Fairhaven.
- **October 1985** - The Commonwealth completed removal of the wastewater lagoon
- **January 1987** - Site was listed on DEP's Hazardous Waste Sites list.
- **June 1988** - Site was proposed for inclusion on EPA's National Priorities List ("NPL").
- **February 1990** - Site was placed on the NPL.
- **1992** - EPA issued a Unilateral Administrative Order (UAO) requiring Atlas Tack to install and maintain a fence to limit access to the site.
- **May 1995** - EPA completed the Remedial Investigation (RI).
- **July 1998** - EPA completed the Feasibility Study (FS).
- **April 27, 1998** - EPA issued a General Notice of Responsibility and Potential Liability to Atlas Tack.
- **July 31, 1998** - EPA issued a General Notice of Responsibility and Potential Liability to the Hathaway-Braleley Wharf Company.
- **August 13, 1998** - Superior Court judgment entered against Atlas Tack in an action taken brought by the Fairhaven Fire Chief to abate fire hazards at the Atlas Tack facility.
- **December 1998** - EPA issued a Proposed Plan for the selected remedy.
- **Fall 1998 through January 1999** - Atlas Tack demolished the middle section of the main building.
- **August 9, 1999** - EPA issued a second UAO to Atlas Tack to remove asbestos-containing materials from the front office building, rear three-story building and the power plant.
- **September 28, 1999 through February 9, 2000** - EPA removed asbestos from the buildings after Atlas Tack failed to comply with the August 9, 1999 UAO.
- **March 10, 2000** - The record of decision was signed.
- **October 2, 2000** - EPA issued a Special Notice of Responsibility and Potential Liability to Atlas Tack inviting Atlas Tack to perform the selected site cleanup remedy under a negotiated Remedial Design/Remedial Action (RD/RA) consent decree. Atlas Tack has not entered into the RD/RA consent decree with EPA.
- **January, 2001 to Present** - EPA completed the remedial design for the first two phases of the RA. EPA is also conducting a bioavailability study to better define the extent of cleanup necessary in the salt marsh areas (third phase of the RA).

► Fig. 3



## SECTION 2 - REUSE STATUS

From the standpoint of reuse, the site may be divided into areas based upon site characteristics. Additionally, consideration must also be given to the fact that there are two owners of two separate properties at this site. Thus, for reuse evaluation and planning purposes, the Hathaway-Braley's property and the Atlas Tack property should be considered separately. EPA currently has Superfund liens on both the Atlas Tack property and the Hathaway-Braley property.

### ►Atlas Tack Corporation Property

As described above, the Atlas Tack property consists of the Commercial Area, the SWD Area, the Marsh Area and the Creek Bed Area. As these areas of the site have different characteristics (and will be addressed separately in the remedial action), current and potential uses may vary between the respective areas, as will the potential use/reuse issues and considerations.

#### Commercial Area

##### Current and Potential Future Uses:

The Commercial Area portion of the site consists of the former main building, the power plant, several small outbuildings and the immediate surroundings (Map #8, lot #94 on the Town Assessors Map). This area is currently zoned industrial/commercial.

The central section of the main building has been demolished, but the terminal sections of the building are still intact and are in a state of extreme disrepair. The concrete slab below the central section still remains, but may be removed depending upon the extent of contamination below the slab and whether removal will facilitate the cleanup. The western section of the building is expected to remain. The eastern section of the building and the power plant are slated for demolition.



Rear of Administration Building

The western two story section was the administration building. Although potentially reusable, it appears to be in a state of extreme disrepair as do the other remaining buildings. EPA did not conduct a structural evaluation of the remaining buildings. EPA removed asbestos from these buildings in late 1999 through early 2000.

EPA has no information concerning Atlas Tack's intentions with respect to any future use or redevelopment of its property.

Although there was some discussion at a public meeting held on April 10, 1996, of the Town taking a portion of the site through a tax foreclosure, the Town has no plans for reusing the site at this time.

A poll of the attendees at the May 20, 1996 public meeting indicated that "eight favored a residential cleanup; 19 a commercial cleanup; and three favored a mixed (residential/commercial) cleanup." (Weston, 1998).

EPA's ROD assumes a commercial/industrial exposure scenario, although the remedy does not preclude other future uses providing the associated risk scenario criteria are met.

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**Potential Use/Reuse Issues and Considerations:**

To date, Atlas Tack has been unwilling to conduct the necessary cleanup. Accordingly, cleanup is unlikely to occur until EPA has available funding.

The Commercial Area has frontage on Pleasant Street and Church Street, which would likely be the primary route of access to the site.

The Commercial Area will be remediated to attain exposure levels acceptable for a commercial/ industrial area. In a commercial/industrial setting, cleanup levels based on direct human contact are generally established for the top two feet of soil. Additional soil removal may be necessary to meet the ecological threats, however.



Former Lagoon area

Institutional controls will also be implemented as part of the remedy. For the Commercial Area this will likely include restricting this area to non-residential use, and imposing restrictions or conditions on groundwater use and soil excavation.

**Solid Waste and Disposal Area****Current and Potential Future Uses:**

On the Atlas Tack property, approximately six acres (including the former lagoon area and the fill area) are considered part of the SWD Area. This area is also part of the parcel identified on the Town Assessors Map as Map #8, Lot 94. It is a significant source area for contamination. Much of this area

was originally a salt marsh, however, and it will be returned to a functioning wetland. Wetland protection laws will likely preclude this area from being used for other purposes.

**Potential Use/Reuse Issues and Considerations:**

None Identified.

**Marsh and Creek Bed Area**

The remedy selected in the ROD provides for excavation and restoration of the Marsh and Creek Bed Areas of the site (including areas north and south of the hurricane barrier). The extent of this remediation has not yet been determined. It is expected that the decision will be made in conjunction with the other remedy design activities that are currently in progress for the site. Atlas Tack owns the marsh area north and immediately south of the hurricane barrier. Other sections of the south marsh area are owned by the town and either owned or controlled through an easement by Commonwealth Electric.

**Current and Potential Future Uses:**

Should the salt marsh areas need remediation, they will be remediated through excavation, natural attenuation, monitored groundwater, and the excavated areas will be restored. Development of wetland areas may be limited and/or precluded entirely by applicable law. Further, institutional controls may also be established to further limit these areas to certain recreational uses.

**Potential Use/Reuse Issues and Considerations:**

None Identified.



### ►Hathaway-Braley Wharf Company Property

This property abuts the southeast side of the Atlas Tack property and is approximately 500 feet southeast of the main building on the Atlas Tack property (Map # 6, Lot # 46 on the Town Assessors Map). In terms of site characterization and remedial action, this parcel includes both a portion of the SWD Area as well as a portion of the marsh area.

#### **Current and Potential Future Uses:**

The property consists of an upland wooded area, a fresh water wetland area and a salt marsh area. There are no structures currently on this parcel and it is not known if any portions can be built on. As noted above, this parcel includes the CID area.

Because much of the parcel is considered wetlands, it is expected that following remediation and restoration, this area will be used primarily for wildlife habitat and conservation purposes.

#### **Potential Use/Reuse Issues and Considerations:**

This property has a small amount of frontage on Church Street.



Hathaway-Braley Company Property

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## SECTION 3 - GENERAL FINDINGS/RECOMMENDATIONS

This section summarizes some issues that may impact the future use of the site and outlines follow-up actions by EPA to refine its understanding of potential future uses of the site, consistent with the general exposure scenarios established in the ROD.

Because the individual site parcels are owned by private parties, EPA's primary role will be to ensure that local reuse efforts are considered in EPA's decision making with respect to the site response actions.

### Potential Reuse Issues/Considerations

This document is based on available information, and the reuse issues and considerations identified in this section may represent only a partial list of the potential site-specific factors that may need to be considered. Future development at the site is presumed to be limited to the non-wetland portion of the property.

**Project Timing:** With the remedial design for the initial cleanup phases complete, EPA will begin implementation of the selected remedy as funding becomes available. EPA's ability to consider potential changes to the remedy will be increasingly limited as the implementation proceeds. It is, therefore, important that any site reuse proposals be brought to EPA's attention as early as possible.

**Third Party Liability Concerns:** Any party interested in redeveloping the site needs to be aware of and consider Superfund liability issues.

**Site Ownership/Control:** The site parcels are currently owned by Atlas Tack and Hathaway-Braleigh Wharf Company, which are not pursuing site cleanup or site reuse. Atlas Tack is not currently performing the RD/RA work at the site. EPA costs incurred at the site to date are approximately \$5.5 million. The future cost of the cleanup is projected to be approximately \$18,200,000.

**Site Reuse Planning:** At some point in the future, the town may initiate reuse planning that involves all or part of the site. Depending on the nature and timing of this reuse planning, EPA may be able to provide technical assistance or other resources to support those efforts. However, it should again be noted that EPA's ability to accommodate future site reuse may be more limited at this stage of the remedial process.

Among the EPA resources potentially available for site-related reuse planning are Superfund Redevelopment Initiative ("SRI") pilots. SRI pilots provide up to \$100,000 in funding or other resources to enable local communities to better evaluate future land use options at nearby Superfund sites. The active involvement of the community and other stakeholders in the site reuse planning process is viewed by EPA as a critical component of the SRI Pilots. Only federal, state, local and tribal governmental entities are eligible and the typical recipients are municipal and tribal governments. EPA may recover the costs of the SRI Pilot from the PRPs at the site.

**Institutional Controls:** The remedy contemplates that institutional controls will be implemented at the site. These likely will prohibit residential use (and certain other uses such as daycare centers and community gardening) and restrict future soil excavation and construction activities in designated areas. Installation and use of groundwater wells will also likely be prohibited. The removal of most of the contamination source is expected to significantly reduce the levels of contamination in the groundwater over time, however, and any restriction on groundwater use might ultimately be eliminated once the groundwater quality meets all appropriate criteria.

### Recommendations for Follow-up

As stated previously, EPA is best able to accommodate site reuse when specific proposals are available early in the remedial process. The same is true for any reuse planning activities that might involve the site. EPA is not aware of any reuse proposals for the Atlas Tack property, or of any efforts by the town or other parties to acquire the property. Nonetheless, should such intentions be presented in the future, there are a number of ways that EPA may be able to support site reuse during the implementation phase of the cleanup, such as:

- a. Making available guidance materials and providing technical assistance regarding
  - i. EPA policies and requirements pertaining to site reuse; and
  - ii. Relevant federal/state programs and potentially-available resources.
- b. Considering proposed reuse plans in the implementation and scheduling of cleanup activities.
- c. Working with current and future owners to evaluate the feasibility of a proposed use in terms of adverse impact on the remedy, undue risks posed or inconsistency with the requirements of institutional controls.
- d. Working with the town to help them assess their options relative to the future acquisition of site properties. This could possibly include providing limited resources to assist with community-based, reuse planning efforts.

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## **APPENDIX A - Reference Documents Cited**

Weston, 1995 - Remedial Investigation report - Atlas Tack Corporation, Fairhaven, Massachusetts (May 5, 1995), Volume I.

EPA, 2000 - Decision Summary for Record of Decision - Atlas Tack Corporation, Fairhaven, Massachusetts (March 2000).

Weston, 1998 - Draft Final Feasibility Study - Atlas Tack Corporation Superfund Site - Fairhaven, Massachusetts (July 1998), Appendix A.1(a) - "Minutes of the public meeting on 20 May 1996, and the letter dated 11 September 1996 (Town of Fairhaven, Massachusetts)".





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